

BRIEF STATEMENT

OF THE

North Carbondale Coal Company,

TOGETHER WITH THE REPORT OF

WILLIAM F. ROBERTS, ESQ.,

Geologist and Mining Engineer.

AND

EXPLANATORY MAPS, SHOWING THE POSITION AND RESOURCES
OF THE LANDS.

PHILADELPHIA:
PRINTED BY M. P. WILLIAMS,
No. 22 South Third Street.
1857



**VERTICAL SECTION,
of the COAL FORMATION on LANDS of
NORTH CARBONDALE COAL Co.**

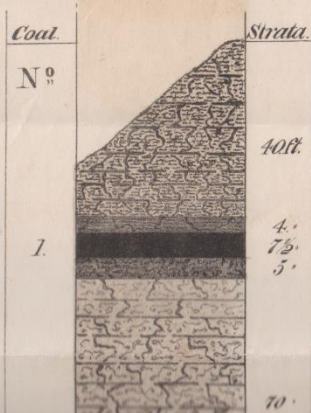
*Situate, in Carbondale Township, Pennsylvania.
Containing 518 Acres.*

No.

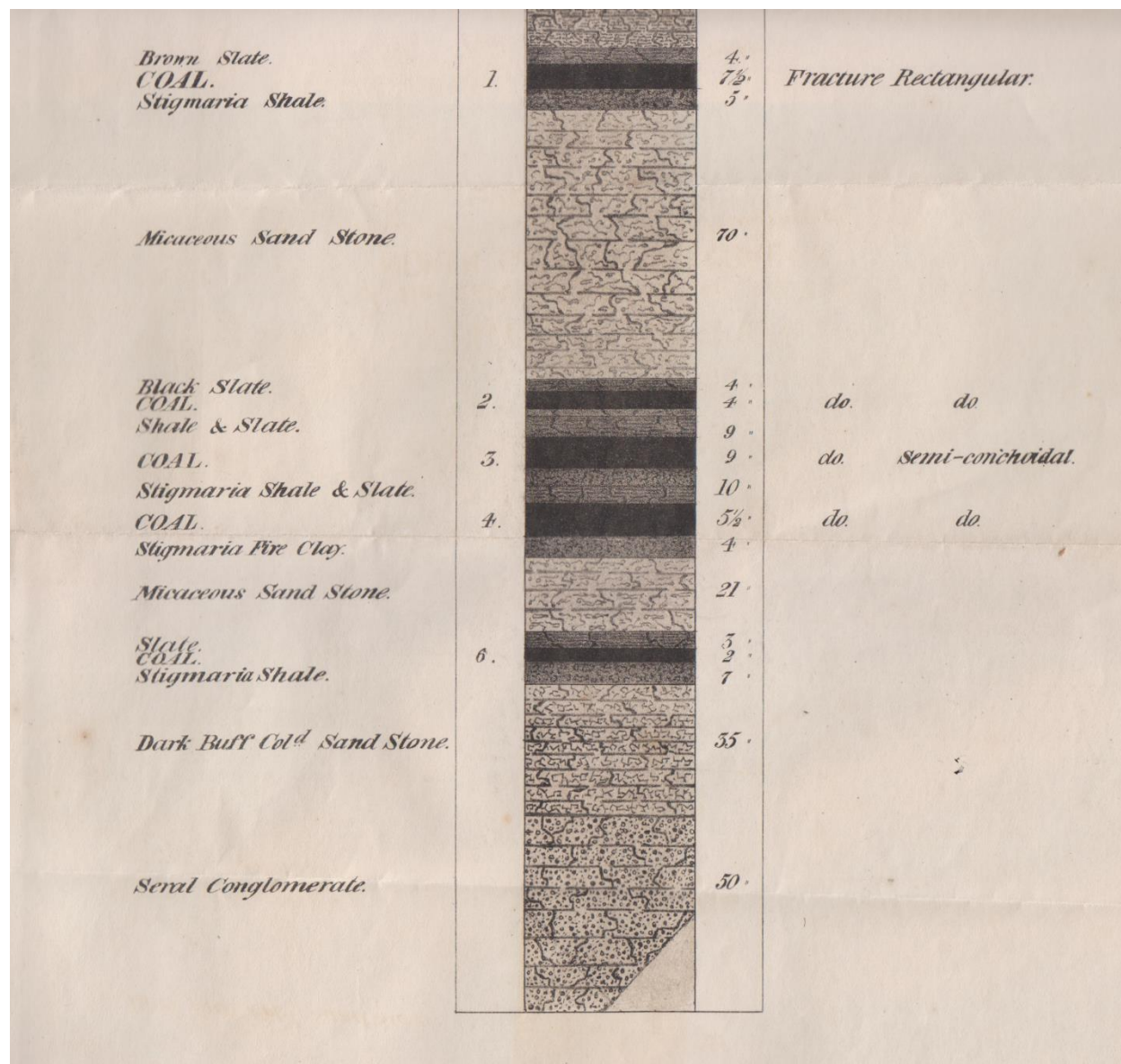
Earth & Shale.

*Brown Slate.
COAL.
Stigmara Shale*

Micaceous Sand Stone



Fracture Rectangular.



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Brief Statement

OF THE NORTH CARBONDALE COAL COMPANY.

This Company is formed under the general Laws of incorporation of the Commonwealth of Pennsylvania, with a Capital of \$250,000 in shares of \$10 each. The property of the Company upon which it is intended to operate, is a tract of 518 Acres of valuable Coal land, eligibly situated for mining profitably, within about one mile of the City of Carbondale, and adjoining the celebrated coal estate of the Delaware and Hudson Coal Company, on which they are now mining coal so successfully. All the veins of that part of the Lackawanna basin are found on this property, which will yield as stated in report annexed of Mr. B. Needham, Mining Engineer and Geologist, at least nine or ten million tons, of merchantable coal. This report is also confirmed by the estimate of Mr. Wm. F. Roberts, whose report on the property, together with a map, is also annexed.

The Coal can be mined on this property by means of a tunnel above water level, at an expense delivered into cars, not exceeding 50 cents per ton. With a single tunnel, 100,000 tons can be mined per annum, or with a double tunnel to the first vein, and a single tunnel extended to another vein, the amount of 200,000 tons of Coal may be mined annually. This Coal can be taken to New York by this Company over the railroad and canal of the Delaware and Hudson Canal Company, or that Company will purchase the Coal at the mines at a price which will yield a net profit of 40 cts. per ton, under a contract to take all that can be delivered to them, for a term of five or ten years.

If this Company adopts the latter method of disposing of their Coal, to the Delaware and Hudson Canal Company at the mines,

there will be an assured profit on a produce of 100,000 tons, of \$40,000 per annum, and on a produce of 200,000 tons, which can be easily mined on the property, of \$80,000 per annum. If we deduct \$7,000 to pay the interest on one hundred thousand dollars worth of bonds issued by the Company, to complete the purchase and equipment of the mines, and \$3,000 for salaries of Superintendent &c., there will remain a net profit of \$70,000 per annum; and if a portion of this sum be appropriated to a sinking fund for the payment of the bonds of the Company, due in ten years, sixty thousand dollars or more may be divided among the stockholders annually.

If, however, the Company should prefer to send its coal to the New York market and sell it there, a larger profit can undoubtedly be made, but this plan of operation would involve a more extensive organization and supervision to conduct its affairs efficiently, while the other mode of doing business would be limited to the operation of mining, which even could be conducted by contract, and thus reduce the matter to the simplest form of general supervision, with a certain annual return of at least 25 per cent. on the capital stock of the Company.

To Col. G. F. Mason,

Dear Sir.

I have visited and partially examined your lands at Carbondale, and herewith submit the result of my conclusions, together with a vertical section of the stratification, and an approximate estimate of the quantity of coal on said lands.

This lot is situated about one mile North West of Carbondale, and adjoins lands of the Delaware and Hudson Canal Company on which they have sunk a shaft, and are mining up towards this lot.

These lands are favorably situated for mining, all dipping southerly, thereby affording a good drainage to the front, where they should be opened.

There are three openings on these lands, clearly determining the existence of four workable seams of coal, as shown in the section, and according to the geological series of the seams of coal in this coal field, there should be another seam of coal about nine feet thick, between Nos. 11 and 5, but, from the limited time I had to examine the surrounding and contiguous lands, I am uncertain as to that point, and have therefore omitted any calculations on it.

The first workable seam of coal is opened at its crop on the south side of the hill, and has been worked for domestic uses. It is also opened on the adjoining lot and proves $7\frac{1}{2}$ feet in thickness.

This seam is of very good quality, and works seven feet of clean coal, producing 11,200 tons per acre. It underlies 315 acres, and will therefore yield 3,528,000 tons.

The second seam in the series is 11 feet thick and will yield about 5,000 tons per acre, having two small slates in it; it underlies about 330 acres, and will yield 1,650,000 tons.

The third seam of coal on these lands, is the one principally

worked by the Delaware and Hudson Canal Company, and its quality is good and very well known in the New York and other Eastern markets. It underlies 347 acres of this property, works full eight feet of clean coal—produces 12,800 tons per acre, and will yield 4,377,600 tons.

The fourth known seam of coal, lies from three to ten feet below the one above, and is also worked by the Company.

It underlies 368 acres of this lot—works five feet of clean coal, producing 8,000 tons per acre, yielding 2,944,000 tons.

All of these seams of coal are of the free burning White Ash variety of anthracites, with very little clinker and few ashes.

From the developments made on this property, where the No. 3 vein is opened on the back side of the hill, and the openings and working on the adjoining lots, both south and east, it is clearly and unmistakably proven, that these seams of coal underlay this property to about the extent I have marked them.

RECAPITULATION.

No. 1 Vein underlies 315 acres, works 7 ft. produces 11,200 tons per acre	3,528,000
" 2 " " 330 " " 3½ " 5 000 " "	1,650,000
" 3 " " 342 " " 8 " 11 800 " "	3,377,600
" 4 " " 368 " " 5 " 8,000 " "	2,944 000
Making 234 " 36,800 " "	12,499,600
From which deduct 20 per cent. for mine waste and supports, . . .	2,499,920
Leaving of clean merchantable coal, ultimately obtainable , . . .	9,999,680

The above estimates are based on actual results obtained at our mines here for several years past, and I think you may with much confidence rely on eventually obtaining from these lands before they are exhausted, at least *Nine millions of tons of merchantable coal.*

There is still left on these lands sufficient and suitable timber for mining the coal, if carefully preserved for that purpose.

The Lanesboro' railroad, now about being constructed, will afford you a good outlet to all the Northern and Eastern markets.

I forgot to mention that the upper or No. 1 seam of coal, can all be mined above water level, and very little expense will open it.

I have thus given you my views in relation to this tract of land as a coal property, without going into minute details, and trust the same may prove satisfactory.

I am, sir, very respectfully &c.

B. NEEDHAM,

Scranton, June 13th, 1856, Mining Engineer and Geologist.

To the North Carbondale Coal Co.

Yours of the 1st ultimo came duly to hand, and in answer would say that I have examined the lands known as the Peter Lee tract, containing 518 acres, on which I made out a full report for Col. Mason, with a section of the stratification, &c. Since that report was made out, borings have been made through all the lower seams, so that the whole number of veins is now well ascertained.

These lands are situated about one mile from Carbondale, on the North West side of the valley, and adjoins lands of the Delaware and Hudson Canal Company, in which they have sunk a shaft and are now mining up towards this lot.

The whole tract is favorably situated for mining, it dips southerly and affords fine drainage to the front of the lot, where the openings should be made, and from which all the coal on the tract can be mined.

There are three openings on this lot, two of which are in the upper seam of coal, where a considerable quantity has been mined for domestic and neighborhood uses, and the other in the large vein in the back part of the lot. There are 5 seams of coal on this tract, three of which are workable and which are equivalent to a seam six yards thick, which will mine out 23,000 tons of coal per acre, besides mine waste where it is underlaid by all the veins. The workable seams of coal on this lot underlies

368 acres, and I think you may be enabled to mine from this lot before the coal is exhausted between nine and ten millions of tons. These lands are fully equal to the best lands about Carbondale, and superior to many of the Company's lands on the opposite side of the river where the Company have mined out all the coal. The quality of the coal on the northern side of the Lackawanna proves superior to that on the southern side, and the Company have been mining under rent leave, on the lands of G. M. Hollenbark, adjoining this lot, where they have obtained all their best coal for several years past.

Three seams of coal can be worked at the same time by a judicious arrangement of the openings and a scientific process of mining, from which 200,000 tons could be taken annually after the first eighteen months operation. By judicious locations of your tunnels, you may be enabled to mine all the coal on the tract *above water level*, and one tunnel besides the small one into the upper seam would be all that is necessary to obtain the desired supply. I should recommend a double tunnel to the big vein, and a continuation of the same, single width, to the third seam, as the location would not so well apply to double roads and turnouts outside, for so large a quantity of coal.

I have thus given you my views in a general way of the advantages which this lot possesses as a coal estate, without going into details, and feel warranted in recommending the same as among the most valuable in the neighborhood of Carbondale.

I am very respectfully yours &c.,

B. NEEDHAM,
Mining Engineer and Geologist.

REPORT

Upon a tract of land in the warrantee name of Peter Lee, containing 518 acres, situated near to the city of Carbondale, in Luzerne county, Pennsylvania.

The Peter Lee tract of land adjoins the estate of the Delaware and Hudson Canal Company, and more than two thirds of it is underlaid with the same famous vein of Anthracite mined by that Company, the quality of which is in such high repute in the city of New York and other places where it is consumed.

The tract also contains the other veins of coal which are found in that part of the basin, and which will be spoken of hereafter.

The vein of Coal mined by the Delaware and Hudson Canal Company, and from which such large profits have been made by them, is worked at the foot of the hill a short distance from and almost due south of the southern boundary of the "Peter Lee" lot, (see map.) There it is found at a depth of eighty feet below the surface, and the mining is carried on by perpendicular shaft, and the coal altogether *below* water level. The vein of coal rises towards the south west and in the Peter Lee lot it can be reached by a short tunnel, and most of it that underlies that lot can be mined *above* water level. In this respect the coal under the Peter Lee tract can be mined cheaper, than that of the Delaware and Hudson Canal Company, lying underneath their lands in the valley to the south of the Lee lot. For the purpose of designating the veins of coal of that part of the region, the principal one I shall call the Carbondale vein, the name it is locally known by, and the others numbers one, two, three, &c., as the case may be, above or below it. The Carbondale vein is in two benches separated by a stratum of slate, which in most

places is strong enough to admit of being worked as two veins; the upper bench varies from seven to eight feet in thickness,—this is coal of excellent quality, and of a fine glassy fracture; the bottom bench varies from four to five feet in thickness, and is a coal of strong nature and good quality; these benches, generally, are separated from each other by about three feet of slate. By a reference to the map it will be seen that there are two places in the Lee lot, marked 9 feet veins, these are the bussets or outcroppings on the streams of the Carbondale vein, which in the hills on either side is covered with a large thickness of rocks and shales, in which are the overlying veins of coal. The vein called 9 feet on the map will without doubt be found of its usual size when pursued under cover, viz: the top bench say seven feet, and the bottom one, say four feet thick, making eleven feet of workable coal in the Carbondale vein in the Lee lot, and which will yield in the aggregate after the necessary deductions are made for pillars, &c., four and a half millions of tons. In the hills ranging from the Lee lot towards the north east, recent developments have proved that a vein of coal of about 5 feet thick overlies the Carbondale vein, and above it another 4 feet thick. These of course, from their geological position, being higher in the series, would not occupy in the Lee lot so extensive an area, as the Carbondale vein, while the one underneath it extends under three fourths of the land. The bottom vein of coal is only opened in two places, viz: on Raggett's brook and on Fall's brook where it appears of too small a size to work at the present time. It is possible that it shows in these places much thinner than it would be found to be if properly opened. In other parts of the northern coal region, and in the middle and southern, the bottom vein, the same as the one just referred to, is a workable vein and in some places as in Plymouth township it is of a mammoth size. However, without taking into consideration any of the others, the Carbondale vein alone, renders the Peter Lee lot a very valuable tract of land, and one which cannot fail under judicious management to yield a large revenue to its owners.

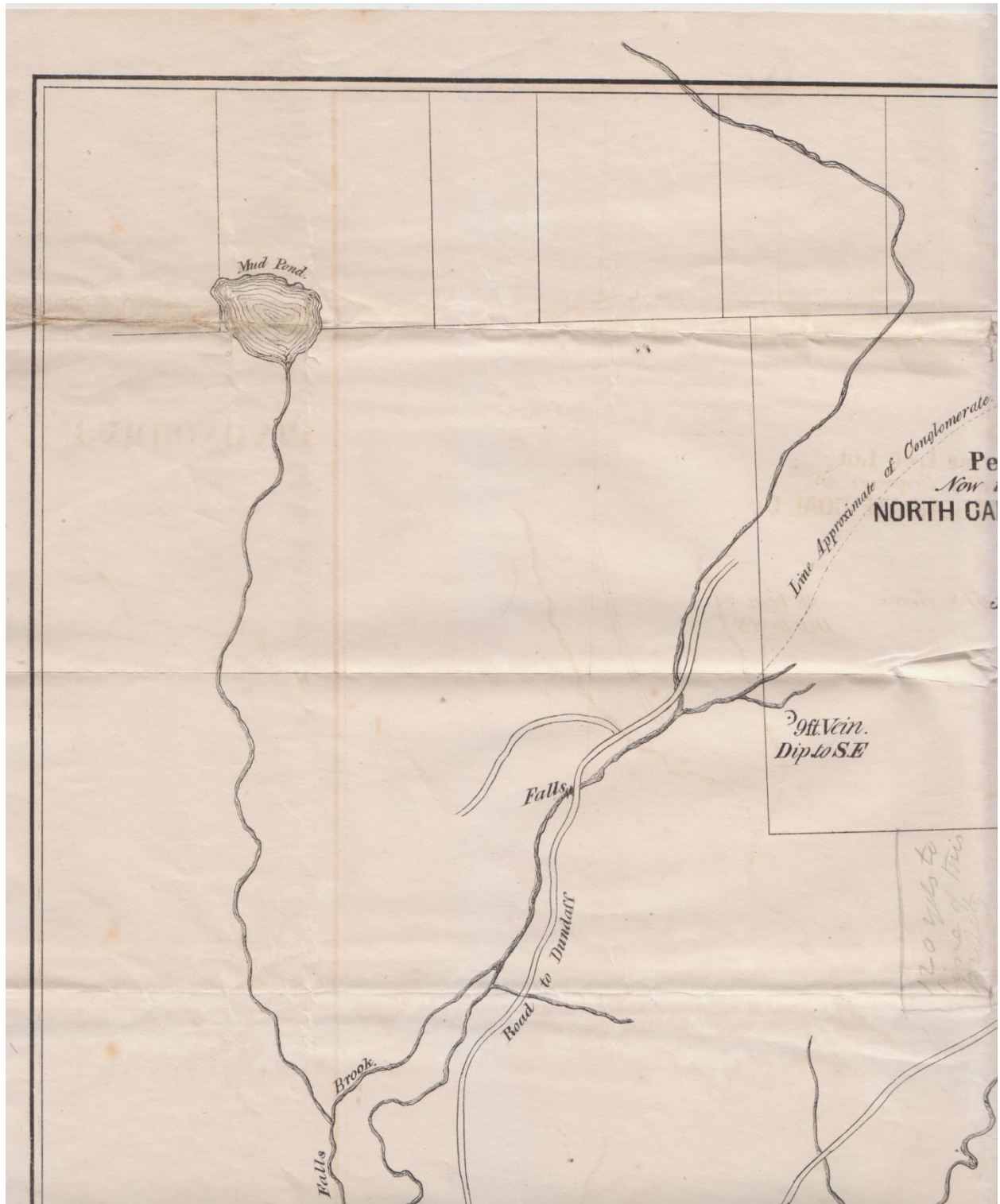
The railroad of the Delaware and Hudson Canal Company is

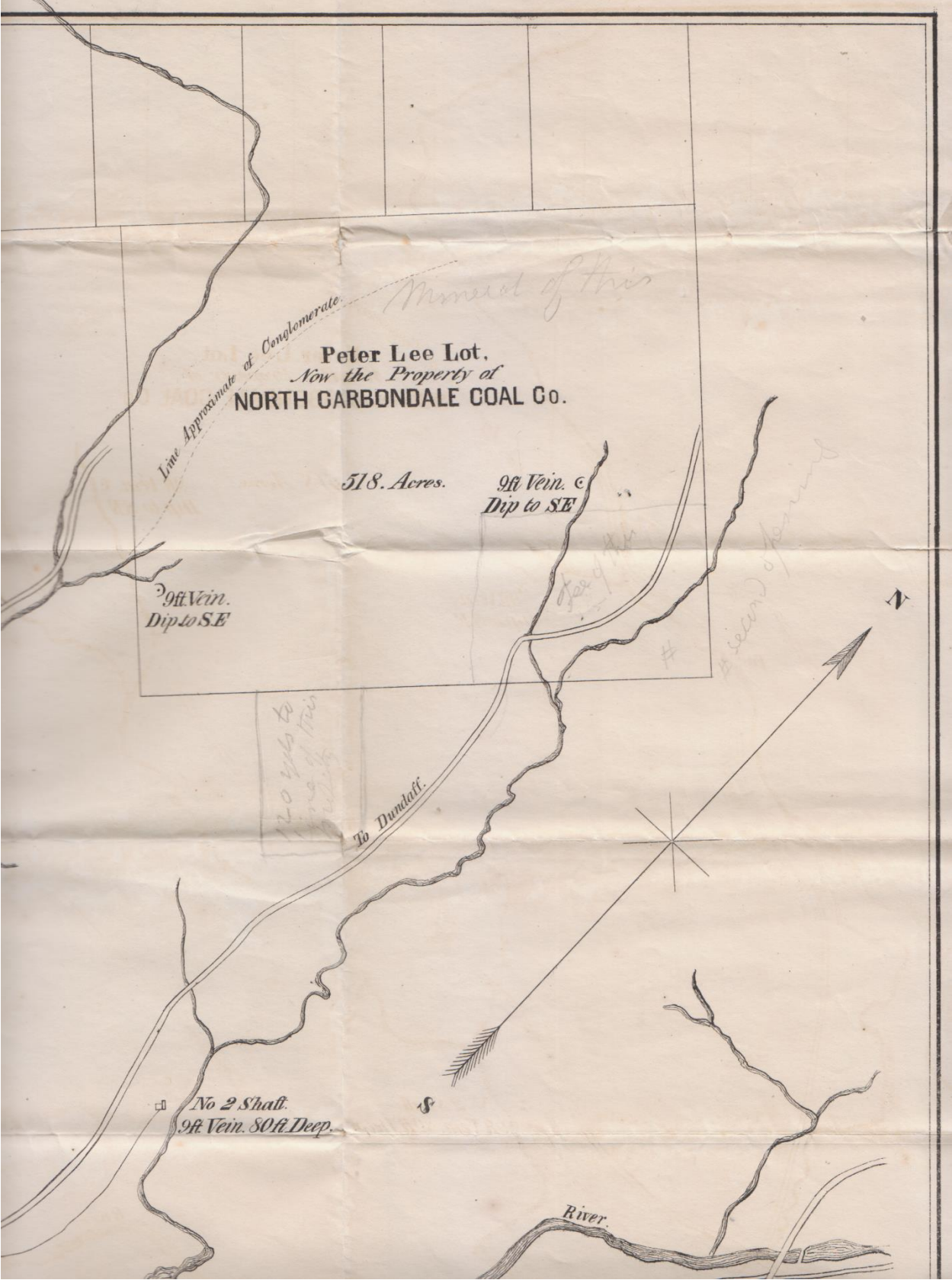
little more than half a mile from the Peter Lee tract, and the railroad about to be built leading from Scranton up the Lackawanna valley to Lanesboro', on the York and Erie railroad, will pass near the south boundary of the tract.

WILLIAM F. ROBERTS,

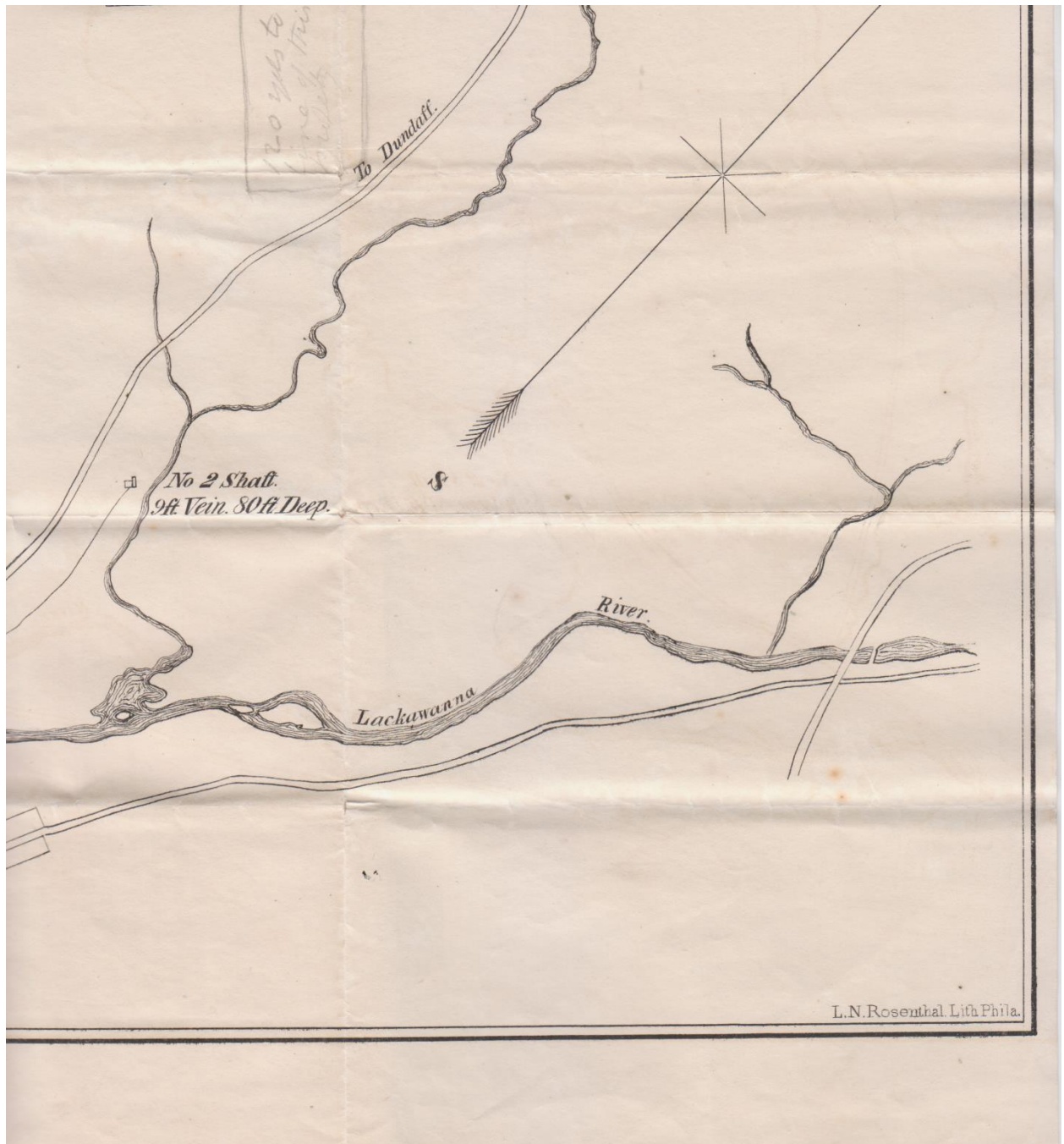
Geologist.

46 $\frac{1}{2}$ Walnut St., Philad'a, February, 1857.









L.N. Rosenthal Lith Phila.